

Applic. No.: 09/845,405  
Response Dated March 10, 2004  
Reply to Office action of December 10, 2003

REMARKS / ARGUMENTS

Reconsideration of the application is requested.

Claims 1 and 4-12 remain in the application. Claims 2-3 have been cancelled. Claims 8-12 have been allowed.

In item 3 on pages 2-3 of the above-mentioned Office action, claims 1, 4-5, and 7 have been rejected as being anticipated by Van Buskirk et al. (US Pat. No. 6,346,741) under 35 U.S.C. § 102(e).

In item 4 on pages 3-4 of the above-mentioned Office action, claims 1, 4-5, and 7 have been rejected as being anticipated by Choi (US Pat. No. 6,030,866) under 35 U.S.C. § 102(e).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

providing a substrate having the structures to be removed on the substrate, the structures to be removed having an aspect ratio of greater than 2 and being formed from a material selected from the group consisting of noble metals, oxides of noble metals, and ferroelectric materials.

Van Buskirk et al. disclose a method for manufacturing a capacitor. As shown in Fig. 1D of Buskirk et al., several layers 28-34, which are intended to form the capacitor, are deposited on the substrate 22. An insulation layer 35 is deposited and a polishing step is performed (see Fig. 1E).

Choi discloses the manufacturing of a capacitor. As shown in Fig. 3D of Choi, an insulating layer 65 and a metal layer 67 are formed on the etch stop layer 57. An insulation layer 69 is deposited and a polishing step is performed (see 3E).

Thus, both Van Buskirk et al. and Choi disclose a method for manufacturing a capacitor wherein a substantially vertical capacitor is produced by depositing a sequence of insulating and conductive layers. The unnecessary portions of these layers are then removed. In both documents those portions are the horizontally oriented layer portions. It is quite clear, however, that the vertically oriented layer portions are not to be removed as the capacitor is basically formed of those portions.

Of course, the capacity chosen for the manufactured capacitor should be as great as possible. The capacity is proportional to the surface of the electrodes. Thus, the capacity is proportional to the height of the vertical portions and a person skilled in the art would try to remove as few vertical layer portions as possible. This can be clearly drawn from either document by a person skilled in the art.

Therefore, the structures to be removed in either Van Buskirk et al. or Choi do not and cannot have an aspect ratio of greater than 2, as recited in the claim language of the instant application. The structures to be removed in both Van Buskirk et al. and Choi are the horizontally oriented layer portions, and consequently have an aspect ratio of smaller than 1.

Clearly, neither Van Buskirk et al. nor Choi show "providing a substrate having the structures to be removed on the substrate, the structures to be removed having an aspect ratio of greater than 2", as recited in claim 1 of the instant application.

Claim 1 is, therefore, believed to be patentable over the art and since claims 4-5 and 7 are dependent on claim 1, they are believed to be patentable as well.

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In item 6 on page 5 of the above-mentioned Office action, claim 6 has been rejected as being unpatentable over Van Buskirk et al. in view of Ismail et al. (US Pat. No. 5,955,759) under 35 U.S.C. § 103(a).

As discussed above, claim 1 is believed to be patentable over the art. Since claim 6 is ultimately dependent on claim 1, it is believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1 and 4-7 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

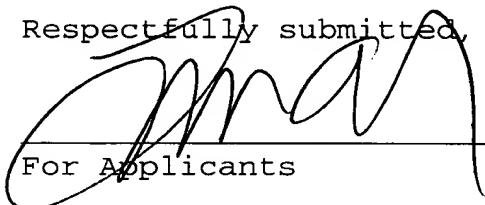
If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to

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the Deposit Account of Lerner and Greenberg, P.A., No. 12-  
1099.

Respectfully submitted,

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